Creating Ideas Applying Values

STRUCT GEOTECH RESEARCH LABORATORIES (P) LTD

BSCIC ISO 9001 REGISTERED BN1868/1500:0210 JAS-ANZ

No. 588, 2nd Main, 6th Block
Hosakerehalli Cross
Banashankari III Stage, II Phase
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SGRL//BBMP/YP/2014-15/307

01.06.2014

To
The Assistant Executive Engineer
Yashwanthapura Sub Division
Bruhath Bangalore Mahanagara Palike
Bangalore

Sir,

Sub: Quality Control Tests on materials for the work of Improvements to drain at 2nd main of Muthyala nagara ward no.17

Ref: 1. W.O. No. EE/QC/Div-2/PR/324/11-12, dt. 18.03.2013
2. Letter no. NO/AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014

With reference to the above cited subject, herewith we are submitting the reports pertaining to 40mm Aggregate, 20mm Aggregate, Sand, Cement, Solid block and Kerb stone test reports. Kindly acknowledge the same upon receipt of Test reports.

This is for your kind information.

Thanking you

Yours faithfully

For Struct Geotech Research Laboratories Private Limited

N.S M

Authorized Signature

Report No.: SGRL / CM /918/ 14 - 15

20.05.2014

TEST REPORT

Client*	:	The Assistant Executive Engineer Yeshwanthpura Sub Division Bruhath Bengaluru Mahanagara Palike Bangalore
Client Reference*	:	AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014
Job Reference *	:	EE/QC/Div-2/PR/324/11-12, dated 18.03.2013
CSR No.	:	CM 299, dt: 20.05.2014
Name of the work*	:	Improvements to drain at 2nd Main of Mutyala Nagara ward No.17
Contractor*	:	Mr. G. Vasu
Source of Sample	:	Sample supplied of TPIA
Sample Id*	:	2nd Main of Mutyala Nagara ward No.17 – PCC 1:4:8 Concrete for Flagging course drain work
Date of receipt	:	20.05.2014
Date of testing	:	20.05.2014
Type of sample	:	Coarse Aggregate - 40mm and down size
Name of test	:	Sieve Analysis

IS Sieve Designation	Cumulative Percent Passing		Test Method
	Test Result	Requirement as per Table – 1000-1 of MoRT&H	
63.00 mm	100	100	IS: 2386 (Part 1) - 1963
40.00 mm	98.80	95 -100	
20.00 mm	35.15	30 - 70	
10.00 mm	21.75	10 -35	
4.75 mm	2.15	0 - 5	

For Struct Geotech Research Laboratories Pvt. Ltd.,

Authorized Signature

B. Venkatesha Murthy
Quality Manager

Note: (i) The Results relate only to the items tested (ii) This test report should not be reproduced except in full, without written approval of this laboratory (iii) Any corrections invalidates this report (iv) Any Query regarding the report must be reported immediately

***Information as furnished by TPIA**

No.: 588, 2nd Main, 6th Block, Hosakerehalli Cross, Banashankari III Stage, II Phase, Bangalore- 560 085
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URL: www.structgeotech.com

Report No.: SGRL / CM /919/ 14 - 15

20.05.2014

TEST REPORT

Client*	:	The Assistant Executive Engineer Yeshwanthpura Sub Division Bruhath Bengaluru Mahanagara Palike Bangalore
Client Reference*	:	AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014
Job Reference *	:	EE/QC/Div-2/PR/324/11-12, dated 18.03.2013
CSR No	:	CM 299, dt: 20.05.2014
Name of the work*	:	Improvements to drain at 2nd Main of Mutyala Nagara ward No.17
Contractor*	:	Mr. G. Vasu
Source of Sample	:	Sample supplied of TPIA
Sample Id*	:	2nd Main of Mutyala Nagara ward No.17 – M15 for Cooping concrete work
Date of receipt	:	20.05.2014
Date of testing	:	20.05.2014
Type of sample	:	Coarse Aggregate - 20mm and down size
Name of test	:	Sieve Analysis

IS Sieve Designation	Cumulative Percent Passing		Test Method
	Test Result	Requirement as per Table – 1000-1 of MoRT&H	
40.00 mm	100	100	IS: 2386 (Part 1) - 1963
20.00 mm	95.60	95-100	
10.00 mm	25.03	25-55	
4.75 mm	2.57	0-10	

For Struct Geotech Research Laboratories Pvt. Ltd.,

Authorized Signature

R. Venkata Subramanyam
Executive Director

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URL: www.structgeotech.com

Report No.: SGRL / CM /920/ 14 - 15

20.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014

Job Reference* : EE/QC/Div-2/PR/324/11-12,dated 18.03.2013

CSR No. : CM 299, dt: 20.05.2014

Name of the Project* : Improvements to drain at 2nd Main of Mutyala Nagara ward No.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample ID* : 2nd Main of Mutyala Nagara ward No.17 – PCC 1:4:8 & M15 for Flagging Course & Cooping concrete drain work

Type of Sample : Sand

Name of Test : Sieve Analysis

Date of Receipt : 20.05.2014

Date of Testing : 20.05.2014

Test Method : IS : 2386 (Part 1) 1963

Sl. No.	Sieve Size (mm)	Weight Retained	% Weight Retained	Cumulative % of Weight Retained	% of Weight Passing	Specifications as Per MoRT&H
1	10	0.00	0.00	0.00	100.00	100.00
2	4.75	13.89	2.78	2.78	97.22	90-100
3	2.36	32.48	6.50	9.27	90.73	75-100
4	1.18	130.56	26.11	35.39	64.61	55-90
5	0.60	145.12	29.02	64.41	35.59	35-59
6	0.30	124.15	24.83	89.24	10.76	8-30
7	0.15	49.56	9.91	99.15	0.85	0-10

The Sand tested conforms to Zone II as per MoRT& H (Fourth Revision)

For Struct Geotech Research Laboratories Private Limited

Authorised Signature

B. Vishnu Subramanyam
Executive Director

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***Information as furnished by the TPIA**

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URL: www.structgeotech.com

Report No.: SGRL / CM /921/ 14-15

31.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014

Job Reference * : EE/QC/Div-2/PR/324/11-12, dated 18.03.2013

CSR No : CM 299, dt: 20.05.2014

Name of the work* : Improvements to drain at 2nd Main of Mutyala Nagara ward No.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample Id* : 2nd Main of Mutyala Nagara ward No.17 – PCC 1:4:8 & M15 for Flagging Course & Cooping concrete drain work

Date of receipt : 20.05.2014

Date of testing : 20.05.2014 to 31.05.2014

Type of Sample : Cement

Type of Cement*: OPC **Grade of Cement*:** 53 **Brand*:** Birla Super

Sl. No.	Description	Test Result	Requirements as per IS: 12269-1987	Test Method
1.	Setting Time			
	a) Initial Setting Time	180 min	Min.30 min	IS 4031 (Part V)
	b) Final Setting Time	420 min	Max.600 min	
2.	Standard Consistency	29.5 %	-	IS: 4031 (Part IV)
3.	Compressive Strength (i) 3 days (72 ± 1h) (average of three results)	28.5 N/mm^2	Not less than 27 N/mm^2	IS: 4031 (Part VI)

For Struct Geotech Research Laboratories Pvt. Ltd.,

Authorized Signature

Executive Director

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URL: www.structgeotech.com

Report No: SGRL/CM/922/14-15

31.05.2014

TEST REPORT

Client : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014

Job Reference * : EE/QC/Div-2/PR/324/11-12, dt: 18.03.2013

CSR No. : CM 299, dt: 20.05.2014

Name of the Work* : Improvements to drain at 2nd Main of Mutyala Nagara ward No.17

Contractor* : Mr. G. Vasu

Source of sample : Sample supplied of TPIA

Sample Id* : 2nd Main of Mutyala Nagara ward No.17 - for Drain work

No. of Blocks Tested* : 3 Nos.

Date of Receipt : 20.05.2014

Date of Testing : 31.05.2014

Method of Test : IS: 2185 (Part I) - 2005

Type of Sample* : Solid Concrete Block (400mm x 200mm x 200 mm)

Sl. No.	Date of Casting	Block ID	Dimension of Specimen(mm) L x B x H	Weight of Block (Kg)	Failure Load (kN)	Compressive Strength (N/mm2)
1	-	CM 299 - h1	400.10 x 200.20 x 200.20	23.51	456	5.7
2	-	CM 299 - h2	400.20 x 200.40 x 200.40	24.30	421	5.2
3	-	CM 299 - h3	400.00 x 200.30 x 200.30	23.61	478	6.0

For Struct Geotech Research Laboratories Private Limited

Authorised Signature

B. Venkata Subramanyam
Executive Director

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URL: www.structgeotech.com

Report No.: SGRL / CM / 923/ 14-15 31.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/306-1/2013-14, dt:15.05.2014

Job Reference* EE/QC/Div-2/PR/324/11-12, dt: 18.03.2013

CSR No. : CM 299, dt: 20.05.2014

Name of the Work* : Improvements to drain at 2nd Main of Mutyala Nagara ward No.17

Contractor* : Mr. G. Vasu

Source of sample : Sample supplied of TPIA

Sample ID* : 2nd Main of Mutyala Nagara ward No.17 - for road side drain work

Grade of Concrete* : CC 1:2:4

Date of Receipt : 20.05.2014

Date of Testing : 31.05.2014

Name Test : Concrete Core Compressive Strength of precast solid concrete kerb stone

Technical : IS : 516 - 1959, SP - 24 : 1983

Sl. No.	Identification*	Core Details				H / D ratio	Correction factor for H/D	Failure Load (kN)	Core Strength (N/mm^2)	Corrected Core Strength for Diameter (N/mm^2)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
		Dia, D (mm)	Height, H (mm)	Weight (kg)	Density (kg/m^3)							
1	CM 299-e_1	74.0	139.65	1.38	2298.8	1.89	0.99	59.0	13.73	14.82	14.64	18.30
2	CM 299-e_2	74.0	139.20	1.41	2356.4	1.88	0.99	60.0	13.96	15.07	14.88	18.60
3	CM 299-e_3	74.0	139.23	1.42	2372.6	1.88	0.99	62.0	14.42	15.58	15.38	19.22

Correction factor : from Fig. 1 of IS: 516 - 1959
Core Strength : Failure Load / Cross sectional area of Core
Corrected Core Strength for Diameter : 1.08 x Core Strength
Corrected Cylinder Compressive Strength : Corrected Core Strength x Correction factor
Equivalent Cube Compressive Strength : 1.25 x Corrected Cylinder Compressive Strength

For Struct Geotech Research Laboratories Private Limited

Authorized Signature
B. Venkata Subramanyam
Executive Director

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*** Information as furnished by TPIA**

****** end of the test report ******

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URL: www.structgeotech.com

Regarding Quality Control Certificate

NAME OF WORK : Improvements to drain at 2nd main of Muthyalanagara in ward no 17

JOB NO : 017-14-000035

WORK ORDER NO : EE/RRN/Wo.No/306/2013-14, dated: 26-02-14.

On verification of Quality control test reports available in the file and also from inspection report of the Technical Team deployed for this purpose generally the work executed is satisfactory compliance of Quality Control test reports as per MORT & H this stage is not feasible since the work was executed 2 (two) years back.

Executive Engineer
Rajarajeshwari Nagara Division
BBMP, Bangalore